



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Xun Wilson Huang, Cristian Estan and Srinivasan Keshav  
APPLICATION NO.: 09/747,687  
FILING DATE: December 22, 2000  
TITLE: Virtualizing Super-User Privileges for Multiple Virtual Processes  
EXAMINER: Alvin E. Oberley  
GROUP ART UNIT: 2126  
ATTY. DKT. NO.: 21816-04953

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, Washington, D.C. 20231, on the date shown below:

Dated: 3/13/03

By: Jeffrey Brill  
Jeffrey Brill, Reg. No.: 51,198

COMMISSIONER FOR PATENTS  
WASHINGTON, DC. 20231

**INFORMATION DISCLOSURE STATEMENT**  
Under 37 CFR §§ 1.56 and 1.97-98

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO/SB/08A listing references for consideration by the Examiner. Enclosed is a copy of each listed reference that may be material to the examination of this application, and for which there may be a duty to disclose.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

- ☒ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;

- ☐ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR §1.113; or (2) an action that otherwise closes prosecution in the application, and:
  - ☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR. § 1.97(c); OR
  - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;
- ☐ on or before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:
  - ☐ Applicant certifies pursuant to 37 CFR. § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this

PATENT

certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND

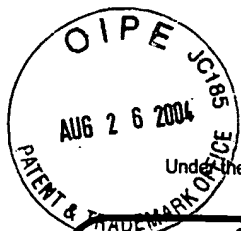
- ☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR. § 1.97(c); OR
- ☐ after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.
- ☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. \_\_\_\_\_, filed on \_\_\_\_\_, and the references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).
- ☐ Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).
- ☒ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

Consideration of the listed references and favorable action are solicited.

Respectfully submitted,  
XUN WILSON HUANG, CRISTIAN ESTAN  
AND SRINIVASAN KESHAV

Dated: 3/13/03

By: Jeffrey Brill  
Jeffrey Brill, Reg. No.: 51,198  
Fenwick & West LLP  
Silicon Valley Center  
801 California Street  
Mountain View, CA 94041  
Tel.: (650) 335-7291  
Fax.: (650) 938-5200



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08A (10-01)  
Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**Complete if Known**

Application No.	09/747,687
Filing Date	December 22, 2000
First Named Inventor	Xun Wilson Huang
Art Unit	2126
Examiner Name	Alvin Oberley
Attorney Docket Number	21816-04953

Sheet 1 of 1

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number - Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A	5,528,753	06/18/1996	Fortin
	B	5,226,160	07/06/1993	Waldron et al.
		US-		
		US-		
		US-		
		US-		
		US-		
		US-		
		US-		

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
	C	WO 99/39261	08/05/1999	The Learning Company	

### OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.); date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

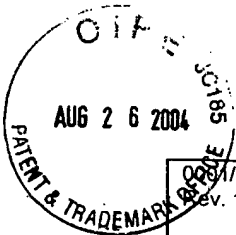
<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

21816/04953/DOCS/1328997.1

Date Mailed: 7/29/03 | Atty/Sec: SAT/dkc | Filing Date: December 22, 2000  
Application No.: 09/747,687 | Docket No.: 21816-04953  
Applicants: Xun Wilson Huang, et al.  
Title: Virtualizing Super User Privileges for Multiple Virtual Processes  
Please imprint Patent Office "date stamp" hereon to indicate receipt and return card to addressee.

Transmittal  
IDS, PTO/SB/08A and cited references





<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence during pendency of filed application)</i>	U.S. Department of Commerce Patent and Trademark Office	Application Number	09/747,687
		Filing Date	December 22, 2000
		First Named Inventor	Xun Wilson Huang
		Group Art Unit Number	2126
		Examiner Name	Alvin Oberley
Total Number of Pages in This Submission	6*	Attorney Docket Number	21816-04953

ENCLOSURES (check all that apply)	
<input type="checkbox"/> Fee Transmittal Form (in duplicate) <input type="checkbox"/> Check Enclosed	<input type="checkbox"/> Issue Fee Transmittal
<input checked="" type="checkbox"/> Return Receipt Postcard	<input type="checkbox"/> Letter to Chief Draftsperson
<input type="checkbox"/> Response to Notice to File Missing Parts	<input type="checkbox"/> Formal Drawing(s): [ ] Sheet(s) of Figure(s) [ ]
<input type="checkbox"/> Assignment & Recordation Cover Sheet	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Declaration	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> Power of Attorney	<input type="checkbox"/> Certified Copy of Priority Document(s)
<input type="checkbox"/> Application Data Sheet	<input type="checkbox"/> After Allowance Communication to Group
<input checked="" type="checkbox"/> Information Disclosure Statement & PTO/SB/08A <input checked="" type="checkbox"/> Copies of IDS Cited References	<input type="checkbox"/>
<input type="checkbox"/> Request for Corrected Filing Receipt	<input type="checkbox"/>
<input type="checkbox"/> Request for Correction of Recorded Assignment	<input type="checkbox"/>
<input type="checkbox"/> Amendment/Response: [ ] Page(s) <input type="checkbox"/> After Final	<input type="checkbox"/>
<input type="checkbox"/> Status Request	<input type="checkbox"/>
<input type="checkbox"/> Revocation and Substitute Power of Attorney	<input type="checkbox"/>

REMARKS: \*Number of pages does not include cited references

SIGNATURE OF ATTORNEY OR AGENT		
Signature:		
Attorney/Reg. No.:	Jeffrey Brill, Reg. No.: 51,198	Dated: 7/29/03

CERTIFICATE OF MAILING		
I hereby certify that this correspondence, including the enclosures identified above, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on the date shown below. If the Express Mail Mailing Number is filled in below, then this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service pursuant to 37 CFR 1.10.		
Signature:		
Typed or Printed Name:	Jeffrey Brill	Dated: 7/29/03
Express Mail Mailing Number (optional):		



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

### Complete if Known

Application No.	09/747,687
Filing Date	December 22, 2000
First Named Inventor	Xun Wilson Huang
Art Unit	2126
Examiner Name	Alvin E. Oberley
Attorney Docket Number	21816-04953

Sheet

1

of

2

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document No.		Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number - Kind Code <sup>2</sup> (if known)			
	A	US-6,553,413		04-22-2003	Leighton et al.
	B	US-6,529,950		03-04-2003	Lumelsky et al.
	C	US-6,499,137		12-24-2002	Hunt
	D	US-6,487,578		11-29-2002	Ranganathan
	E	US-6,434,631		08-13-2002	Bruno et al.
	F	US-6,385,638		05-07-2002	Baker-Harvey
	G	US-6,363,053		03-26-2002	Schuster et al.
	H	US-6,353,616		03-05-2002	Elwalid et al.
	I	US-6,351,775		02-26-2002	Yu
	J	US-6,336,138		01-01-2002	Caswell et al.
	K	US-6,327,622		12-04-2001	Jindal et al.
	L	US-6,314,558		11-06-2001	Angel et al.
	M	US-6,286,047		09-04-2001	Ramanathan et al.
	N	US-6,282,703		08-28-2001	Meth et al.
	O	US-6,279,040		08-21-2001	Ma et al.
	P	US-6,279,039		08-21-2001	Bhat et al.
	Q	US-6,247,057		06-12-2001	Barrera
	R	US-6,240,463		05-29-2001	Benmohamed et al.
	S	US-6,230,203		05-08-2001	Koperda et al.
	T	US-6,172,981		01-09-2001	Cox et al.
	U	US-6,154,778		11-28-2000	Koistinen et al.
	V	US-6,154,776		11-28-2000	Martin
	W	US-6,108,701		08-22-2000	Davis et al.
	X	US-6,094,674		07-25-2000	Hattori, et al.
	Y	US-6,092,178		07-18-2000	Jindal et al.

Examiner  
Signature

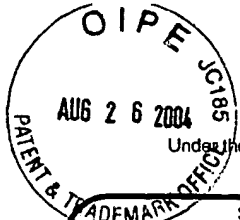
Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

21816/04953/DOCS/1366509.1



Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

### Complete if Known

Application No.	09/747,687
Filing Date	December 22, 2000
First Named Inventor	Xun Wilson Huang
Art Unit	2126
Examiner Name	Alvin E. Oberley
Attorney Docket Number	21816-04953

Sheet 2 of 2

### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number – Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	Z	US-6,055,617	04-25-2000	Kingsbury
	AA	US-6,038,609	03-14-2000	Geulen
	BB	US-6,038,608	03-14-2000	Katsumanta
	CC	US-5,999,963	12-07-1999	Bruno et al.
	DD	US-5,987,524	11-16-1999	Yoshida et al.
	EE	US-5,933,603	08-03-1999	Vahalia, et al.
	FF	US-5,915,095	06-22-1999	Miskowiec
	GG	US-5,905,859	05-18-1999	Holloway, et al.
	HH	US-5,799,173	08-25-1998	Gossler et al.
	II	US-5,719,854	02-17-1998	Choudhury et al.
	JJ	US-5,640,595	06-17-1997	Baughner et al.

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> – Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>

### OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
	KK	Symbol Table, [online] copyright 1997, 1998, [Retrieved on April 4, 2003] Retrieved from the internet < URL: <a href="http://216.239.33.100/search?q=cache:eASXk8qC_-AC:www.caldera.com/developers/gabi/1998-04-29/ch4.s...">http://216.239.33.100/search?q=cache:eASXk8qC_-AC:www.caldera.com/developers/gabi/1998-04-29/ch4.s...</a> ], Pages 1-5	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.  
Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

21816/04953/DOCS/1366509.1

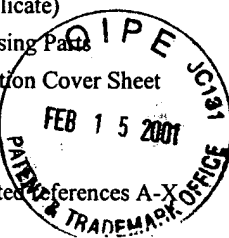


451

Date Mailed: 2/12/01	Atty/Sec: JB/cck	Filing Date: December 22, 2000
Serial No. 09/747,687	Docket No.: 21816-04953	
Applicant: Xun Wilson Huang		
Title: Virtualizing Super-User Privileges for Multiple Virtual Processes		

Please imprint Patent Office "date stamp" hereon to indicate receipt and then return card to addressee

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Transmittal Form                        | <input type="checkbox"/> CPA Request Transmittal               |
| <input type="checkbox"/> Fee Transmittal (in duplicate)                     | <input type="checkbox"/> Request to Correct Filing Receipt     |
| <input type="checkbox"/> Resp. to Notice Of Missing Parts                   | <input type="checkbox"/> Request to Correct Assignment         |
| <input type="checkbox"/> Assignment & Recordation Cover Sheet               | <input type="checkbox"/> Amendment/Response                    |
| <input type="checkbox"/> Declaration  | <input type="checkbox"/> Issue Fee Transmittal                 |
| <input type="checkbox"/> Small Entity Statement                             | <input type="checkbox"/> Letter to Chief Draftsperson          |
| <input checked="" type="checkbox"/> IDS, PTO-1449, and cited references A-X | <input type="checkbox"/> Formal Drawings: ___ sheets           |
| <input type="checkbox"/> Express Mail No.                                   | <input type="checkbox"/> Maintenance Fee Payment               |
| <input type="checkbox"/> Check in the amount of \$ _____                    | <input type="checkbox"/> Request for Certificate of Correction |
| <input type="checkbox"/> Other:   | <input type="checkbox"/> Notice of Appeal                      |



21816/04953/DOCS/1143354.1



PATENT

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

APPLICANTS: Xun Wilson Huang, Cristian Estan, and Srinivasan Keshav  
APPLICATION NO.: 09/747,687  
FILING DATE: December 22, 2000  
TITLE: Virtualizing Super-User Privileges for Multiple Virtual Processes  
EXAMINER: Not yet known  
GROUP ART UNIT: Not yet known  
ATTY. DKT. NO.: 21816-04953

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, Washington, D.C. 20231, on the date shown below:

Dated: 2/12/01

By:

Albert C. Smith, Reg. No.: 20,355

COMMISSIONER FOR PATENTS  
WASHINGTON, DC. 20231

**INFORMATION DISCLOSURE STATEMENT**  
**Under 37 CFR §§ 1.56 and 1.97-98**

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO-1449 listing references for consideration by the Examiner. A copy is enclosed herewith of each listed reference which may be material to the examination of this application, and with respect to which there may be a duty to disclose.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

- ☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application Serial No. [SERIAL NUMBER], filed on [FILING DATE], and the

references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).

The Information Disclosure Statement submitted herewith is being filed:

- ☒ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first official action on the merits, whichever event last occurred; OR
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- ☐ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either:
  - (1) a final action under 37 CFR §1.113; OR
  - (2) a notice of allowance under 37 CFR §1.311; AND
  - ☐ attached hereto is the fee of \$180, as set forth under 37 CFR §1.17(p), for submission of this Information Disclosure Statement under 37 CFR. § 1.97(c); OR
  - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing this certification after making reasonable inquiry, was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement.
- OR
- ☐ before the payment of the issue fee but after the mailing date of the first to occur of either:
  - [1] a final action under 37 CFR § 1.113; OR

- [2] a notice of allowance under 37 CFR § 1.311; AND  
in accordance with the requirements of 37 CFR § 1.97(d):
- ☐ Applicant certifies pursuant to 37 CFR. § 1.97(e) that:
- ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
- ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing this certification after making reasonable inquiry, was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND
- ☐ Applicant hereby respectfully petitions for the consideration of the accompanying Information Disclosure Statement under 37 CFR § 1.97(d)(2); AND
- ☐ Applicant submits the petition fee of \$180 as set forth in 37 CFR § 1.17(p).

☒ Applicant submits that no fee is required for the consideration of the accompanying Information Disclosure Statement.

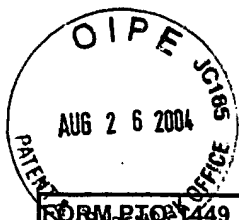
Consideration of the listed references and favorable action are solicited.

Respectfully submitted,  
XUN WILSON HUANG, CRISTIAN ESTAN,  
AND SRINIVASAN KESHAV

Dated: 2/12/01

By: Albert C. Smith  
Albert C. Smith, Reg. No.: 20,355  
Fenwick & West LLP  
Two Palo Alto Square  
Palo Alto, CA 94306  
Tel.: (650) 858-7296  
Fax.: (650) 494-1417

21816/04953/DOCS/1143348.1



<b>PTO FORM 1449</b> (REV. 6-89) <b>INFORMATION DISCLOSURE CITATION</b>  (Use several sheets if necessary)	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		Attorney's Docket No. <b>21816-04953</b>	Serial No. <b>09/747,687</b>
	Applicant <b>Xun Wilson Huang et al.</b>			
	Filing Date <b>December 22, 2000</b>		Group Art Unit <b>Not yet known</b>	

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
A	6 0 7 5 9 3 8	06/13/00	Bugnion et al.	395	500.48	06/10/98

**FOREIGN PATENT DOCUMENTS**

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

B	Keshav, S., <i>An Engineering Approach to Computer Networking: ATM Networks, the Internet, and the Telephone Network</i> , Reading, MA, Addison-Wesley, 1997, pp vii-xi, 85-115, 209-355, 395-444
C	Stevens, R. W., <i>UNIX Network Programming Volume 1 Networking APIs: Sockets and XTI</i> , Upper Saddle River, NJ, Prentice Hall, 1998, pp v-xiv, 29-53, 85-110, 727-760
D	Tanenbaum, A. S. and Woodhull, A. S., <i>Operating Systems: Design and Implementation</i> , Upper Saddle River, NJ, Prentice Hall, 1997, pp vii-xiv, 1-46, 401-454
E	Rubini, A., <i>LINUX Device Drivers</i> , Sebastopol, CA, O'Reilly & Associates, Inc., 1998, pp v-x, 13-40
F	Goyal, P., et al., "A Hierarchical CPU Scheduler for Multimedia Operating Systems," <i>Proceedings of the Second Symposium on Operating Systems Design and Implementations (OSDI'96)</i> , Seattle, WA, October 1996, 15 pages
G	Laurie, B. and Laurie, P., <i>Apache The Definitive Guide</i> , Sebastopol, CA, O'Reilly & Associates, Inc., February 1999, pp v-viii, 43-74
H	Aho, A. V. and Ullman J. D., <i>Principles of Compiler Design</i> , Reading, MA, 1977, pp vii-x, 359-362, 519-522
I	Jonsson, J., "Exploring the Importance of Preprocessing Operations in Real-Time Multiprocessor Scheduling," <i>Proc. of the IEEE Real-Time Systems Symposium - Work-in-Progress session</i> , San Francisco, CA, December 4, 1997, pp 31-34
J	Rusling, D. A., Processes, [online], [retrieved on 12-07-1999]. Retrieved from the Internet: <URL: <a href="http://www.cebaf.gov/~saw/linux/tlk-html/node44.html">http://www.cebaf.gov/~saw/linux/tlk-html/node44.html</a> >
K	Rusling, D. A., Linux Processes, [online], [retrieved on 12-07-1999]. Retrieved from the Internet: <URL: <a href="http://www.cebaf.gov/~saw/linux/tlk-html/node45.html">http://www.cebaf.gov/~saw/linux/tlk-html/node45.html</a> >
L	Rusling, D. A., Identifiers, [online], [retrieved on 12-07-1999]. Retrieved from the Internet: <URL: <a href="http://www.cebaf.gov/~saw/linux/tlk-html/node46.html">http://www.cebaf.gov/~saw/linux/tlk-html/node46.html</a> >
M	Rusling, D. A., Scheduling, [online], [retrieved on 12-07-1999]. Retrieved from the Internet: <URL: <a href="http://www.cebaf.gov/~saw/linux/tlk-html/node47.html">http://www.cebaf.gov/~saw/linux/tlk-html/node47.html</a> >
N	Rusling, D. A., Scheduling in Multiprocessor Systems, [online], [retrieved on 12-07-1999]. Retrieved from the Internet: <URL: <a href="http://www.cebaf.gov/~saw/linux/tlk-html/node48.html">http://www.cebaf.gov/~saw/linux/tlk-html/node48.html</a> >
O	Rusling, D. A., Files, [online], [retrieved on 12-07-1999]. Retrieved from the Internet: <URL: <a href="http://www.cebaf.gov/~saw/linux/tlk-html/node49.html">http://www.cebaf.gov/~saw/linux/tlk-html/node49.html</a> >

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.  
Include copy of this form with next communication to applicant.



Sheet 2 of 2

<b>FORM PTO-1449</b> (REV. 6-89)  <b>INFORMATION DISCLOSURE CITATION</b>  (Use several sheets if necessary)	<b>U.S. DEPARTMENT OF COMMERCE</b> Patent and Trademark Office	<b>Attorney's Docket No.</b> 21816-04953	<b>Serial No.</b> 09/747,687
	<b>Applicant</b> Xun Wilson Huang		
	<b>Filing Date</b> December 22, 2000	<b>Group Art Unit</b> Not yet known	

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

**FOREIGN PATENT DOCUMENTS**

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

	P	Plummer, D. C., <i>An Ethernet Address Resolution Protocol -- or -- Converting Network Protocol Addresses to 48.bit Ethernet Address for Transmission on Ethernet Hardware</i> , November 1982, [online], [retrieved on 1-17-2000]. Retrieved from the Internet: <URL: <a href="http://www.msg.net/kadow/answers/extras/rfc/rfc826.txt">http://www.msg.net/kadow/answers/extras/rfc/rfc826.txt</a> >
	Q	Huang, X. W. et al., "The ENTRAPID Protocol Development Environment," <i>Proceedings of IEEE Infocom'99</i> , March 1999, nine pages
	R	Duffield, N.G., et al., "A Flexible Model for Resource Management in Virtual Private Networks," <i>Computer Communication Review Conference, Computer Communication, ACM SIGCOMM '99 Conference</i> , Cambridge, MA, 8/30/99-9/3/99. pp 95-108
	S	Campbell, A. T. and Keshav, S., "Quality of Service in Distributed Systems," <i>Computer Communications</i> 21, 1998, pp 291-293
	T	Bach, M. J., <i>The Design of the Unix® Operating System</i> , New Delhi, Prentice-Hall of India, 1989, pp v-x, 19-37
	U	McDougall, R., et al., <i>Resource Management</i> , Upper Saddle River, NJ, Prentice Hall, 1999, pp iii-xix, 135-191
	V	Rijsinghani, A., RFC 1624, May 1994, [online], [retrieved 02-02-2000]. retrieved from the internet: <URL: <a href="http://www.faqs.org/rfcs/rfc1624.html">http://www.faqs.org/rfcs/rfc1624.html</a> >
	W	Mallory, T and Kullberg, A., RFC 1141, January 1990 [online], [retrieved 02-02-2000]. retrieved from the Internet: <URL: <a href="http://www.faqs.org/rfcs/rfc1141.html">http://www.faqs.org/rfcs/rfc1141.html</a> >
	X	Egevang, K. and Francis P., RFC 1631, May 1994 [online], [retrieved 02-02-2000]. retrieved from the Internet: <URL: <a href="http://www.faqs.org/rfcs/rfc1631.html">http://www.faqs.org/rfcs/rfc1631.html</a> >

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.  
Include copy of this form with next communication to applicant.

21816/04953/DOCS/1143350.1

Date Mailed: 2/26/01

Atty/Sec: JB/cck

Filing Date: December 22, 2000

Serial No. 09/747,687

Docket No.: 21816-04953

Applicant: Xun Wilson Huang et al.

Title: Virtualizing Super-User Privileges for Multiple Virtual Processes

Please imprint Patent Office "date stamp" hereon to indicate receipt and then return card to addressee

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Transmittal Form                        | <input type="checkbox"/> CPA Request Transmittal               |
| <input type="checkbox"/> Fee Transmittal (in duplicate)                     | <input type="checkbox"/> Request to Correct Filing Receipt     |
| <input type="checkbox"/> Resp. to Notice Of Missing Parts                   | <input type="checkbox"/> Request to Correct Assignment         |
| <input type="checkbox"/> Assignment & Recordation Cover Sheet               | <input type="checkbox"/> Amendment/Response                    |
| <input type="checkbox"/> Declaration  | <input type="checkbox"/> Issue Fee Transmittal                 |
| <input type="checkbox"/> Small Entity Statement                             | <input type="checkbox"/> Letter to Chief Draftsperson          |
| <input checked="" type="checkbox"/> IDS, PTO-1449, and cited references A-E | <input type="checkbox"/> Formal Drawings: ___ sheets           |
| <input type="checkbox"/> Express Mail No.                                   | <input type="checkbox"/> Maintenance Fee Payment               |
| <input type="checkbox"/> Check in the amount of \$ _____                    | <input type="checkbox"/> Request for Certificate of Correction |
| <input type="checkbox"/> Other:   | <input type="checkbox"/> Notice of Appeal                      |



21816/04953/DOCS/1143354.1



Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

**21816-04953**

*(to be used for all correspondence during pendency of  
filed application)*

□

REMARKS: \*Does not include cited reference pages.

## Express Mail Mailing Number (optional):





Approved for use through xx/xx/xx, OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE



PATENT

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

APPLICANTS: Xun Wilson Huang, Cristian Estan, and Srinivasan Keshav  
APPLICATION NO.: 09/747,687  
FILING DATE: December 22, 2000  
TITLE: Virtualizing Super-User Privileges for Multiple Virtual Processes  
EXAMINER: Not yet known  
GROUP ART UNIT: Not yet known  
ATTY. DKT. NO.: 21816-04953

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, Washington, D.C. 20231, on the date shown below:

Dated: 2/26/01

By: A-C Smith  
Albert C. Smith, Reg. No.: 20,355

COMMISSIONER FOR PATENTS  
WASHINGTON, DC. 20231

**INFORMATION DISCLOSURE STATEMENT**  
**Under 37 CFR §§ 1.56 and 1.97-98**

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO-1449 listing references for consideration by the Examiner. A copy is enclosed herewith of each listed reference which may be material to the examination of this application, and with respect to which there may be a duty to disclose.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

- ☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application Serial No. [SERIAL NUMBER], filed on [FILING DATE], and the

PATENT

references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).

The Information Disclosure Statement submitted herewith is being filed:

- ☒ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first official action on the merits, whichever event last occurred; OR
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- ☐ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either:
  - (1) a final action under 37 CFR §1.113; OR
  - (2) a notice of allowance under 37 CFR §1.311; AND
- ☐ attached hereto is the fee of \$180, as set forth under 37 CFR §1.17(p), for submission of this Information Disclosure Statement under 37 CFR. § 1.97(c); OR
- ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
  - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
  - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing this certification after making reasonable inquiry, was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement.
- OR
- ☐ before the payment of the issue fee but after the mailing date of the first to occur of either:
  - [1] a final action under 37 CFR § 1.113; OR

FORM PTO-1449  
(REV. 6-89)U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Attorney's Docket No.

21816-04953

Serial No.

09/747,687

**INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Applicant

Xun Wilson Huang et al.

Filing Date

December 22, 2000

Group Art Unit

Not yet known

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

**FOREIGN PATENT DOCUMENTS**

Document Number	Date	Country	Class	Subclass	Translation
					Yes No

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

A	Goyal, P. et al., "Start-time Fair Queuing: A Scheduling Algorithm for Integrated Services Packet Switching Networks," Proceedings of ACM SIGCOMM '96, San Francisco, CA, August 1996, 14 pages
B	János, T., "Notes on 'A Hierarchical CPU Scheduler for Multimedia Operating Systems' by Pawan Goyal, Xingang Guo and Harrick Vin," [online], [retrieved on 5-8-2000]. Retrieved from the internet: <URL: <a href="http://cs.cornell.edu/Info/Courses/Spring-97/CS614/goy.html">http://cs.cornell.edu/Info/Courses/Spring-97/CS614/goy.html</a> >
C	Goyal, P., "Packet Scheduling Algorithms for Integrated Services Networks," PhD Dissertation, University of Texas, Austin, TX, August 1997
D	Pending United States patent application entitled "Providing Quality of Service Guarantees to Virtual Hosts," serial number 09/452,286, filing date November 30, 1999
E	Pending United States patent application entitled "Selective Interception of System Calls," serial number 09/499,098, filing date February 4, 2000
F	Pending United States patent application entitled "Dynamic Scheduling of Task Streams in a Multiple-Resource System to Ensure Task Stream Quality of Service," serial number 09/498,450, filing date February 4, 2000
G	Pending United States patent application entitled "Disambiguating File Descriptors," serial number 09/500,212, filing date February 8, 2000
H	Pending United States patent application entitled "Restricting Communication Between Network Devices on a Common Network," serial number 09/502,155, filing date February 11, 2000
I	Pending United States patent application entitled "Restricting Communication of Selected Processes to a Set of Specific Network Addresses," serial number 09/503,975, filing date February 14, 2000
J	Pending United States patent application entitled "Enabling a Service Provider to Provide Intranet Services," serial number 09/526,980, filing date March 15, 2000
K	Pending United States patent application entitled "Dynamically Modifying the Resources of a Virtual Server," serial number 09/569,371, filing date May 11, 2000
L	Pending United States patent application entitled "Regulating File Access Rates According to File Type," serial number 09/572,672, filing date May 16, 2000
M	Pending United States patent application entitled "Modifying Internal Components of a Running Operating System," serial number 09/576,393, filing date May 22, 2000
N	Pending United States patent application entitled "Associating Identifiers With Virtual Processes," serial number 09/611,877, filing date July 7, 2000
O	Pending United States patent application entitled "Fairly Partitioning Resources While Limiting the Maximum Fair Share," serial number 09/633,575 filing date August 7, 2000

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.  
Include copy of this form with next communication to applicant.

